

Work Order ID 151913

Friday, October 14, 2016 1:55:10 PM

151913

Page 1

Item ID: D4735-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Scuff Plate
Start Date: 9/22/2016 Start Qty: 10.00 ***10*** Cust Item ID:
Required Date: 10/14/2016 Req'd Qty: 10.00 ***10*** Customer:
Reference:

Approvals: Process Plan:  Date: 16-10-17 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4735	A								
100		0.00							
100									
Purchasing	Memo	0.00							
Purchasing	Issue P/O: <u>34013</u>								
	Make as per Dwg D4735								
	Possible Supplier: G.F.I								
	Material release note is required								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
110									
Packaging	Memo	0.03							
Packaging									
120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	Memo	0.00							
Quality Control									

OCT 20 2016
DAS 13 9-89

10x 8016-11-29.

10

DEC 15 2016
DAS 38 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

Work Order ID 151913

Friday, October 14, 2016 1:55:10 PM

151913

Page 2

Item ID: D4735-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Scuff Plate

Start Date: 9/22/2016 Start Qty: 10.00

10

Cust Item ID:

Required Date: 10/14/2016 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <u>5200</u>	0.00							
130						10	DAS 6 9-89	DEC 19 2016	
Packaging	Memo	0.02							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140							DAS 21 9-89	DEC 19 2016	
QC	Memo	0.17							
Quality Control									

DEC 19 2016



DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : _____			

Friday, October 14, 2016 1:55:10 PM

Page 1

151913

D4735-1

Start Date: 9/22/2016**Required Date:** 10/14/2016

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP REV:A 12.11.01 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4735-1P		Purchased	No			110	Each	0.0000	1	10			
D4735-1P Scuff Plate									**	<i>10x 16-11-29</i>			

DQA: _____ Date: _____

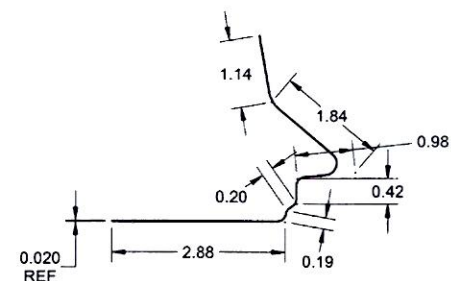
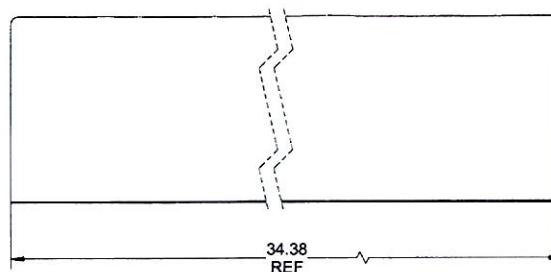
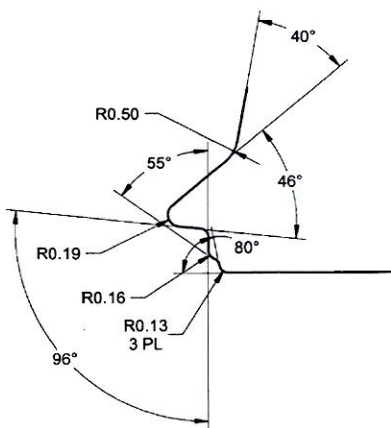


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			



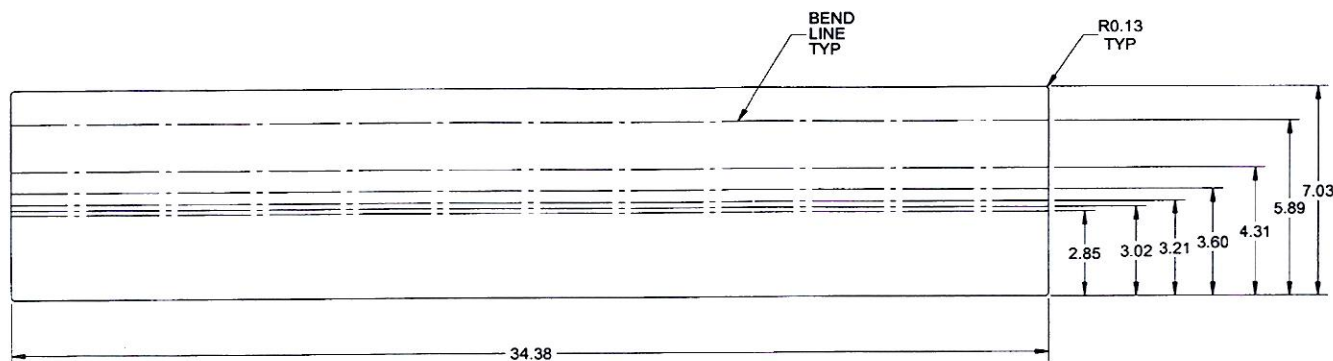
D4735-1 SCUFF PLATE

- NOTES:
- 1) MATERIAL: MAKE FROM D4735-1F FLAT PATTERN
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
 - 7) WEIGHT: 1.40 lbs

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 151913
176-10.17

RELEASED
12.01.04
ECV12-696

A		NEW ISSUE		RF	12.11.01
REV.	DESCRIPTION			BY	DATE
DESIGN	RF	DART AEROSPACE USA, INC. KENT, WA			
DRAWN	RF				
CHECKED		DRAWING NO.	REV. A		
MFG. APPR.		D4735	SHEET 1 OF 2		
APPROVED		TITLE	SCALE		
DE APPR.		SCUFF PLATE	NTS		
DATE	12.11.01	COPYRIGHT © 2012 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE, OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.			



D4735-1F FLAT PATTERN SCUFF PLATE

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL ANNEALED 2B FINISH 0.020 (25 GAUGE) SHEET
PER MIL-S-5059
OR AMS 5513 (304)
OR AMS 5524 (316)
OR ASTM A240
OR ASME SA240
PER DART SPEC. M304S25GA
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.40 lbs

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	KENT, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	D4735	SHEET 2 OF 2
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SCUFF PLATE	NTS
DATE	12.11.01	COPYRIGHT © 2012 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

RELEASED
13.01.04
EON 12-696



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34013**

Purchase Order Date 10/20/2016

PO Print Date 10/20/2016

Page Number 1 of 2

Order From :
GFI
180 AVENUE LABROSSE
POINTE CLAIRE, QC H9R 1A1
CA

VC-GFI001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED

OCT 21 2016

Contact Name
Vendor Phone 514 630 4877

Ship To Contact
Ship To Phone
Ship Via: FedEx Economy collect
Ship Acct:

Buyer
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
----------	--	------------------------	--------------------------------------	----	--------------------------------	---------------	----------------

1	D3628-1P AS PER DWG D3628 REV. C B151898	Cupped Washer	11/15/2016 Yes 11/18/2016 30		500.00 Each	\$2.42	\$1,208.00
---	--	---------------	---------------------------------------	--	----------------	--------	------------

Line Total: \$1,208.00

2	D4735-1P ✓ AS PER DWG D4735 REV. A B151913	Scuff Plate	11/18/2016 Yes 11/18/2016 30		10.00 ✓ Each	\$126.00	\$1,260.00
---	--	-------------	---------------------------------------	--	-----------------	----------	------------

Line Total: \$1,260.00

Note:

10/20/2016



180 AVENUE LABROSSE
POINTE-CLAIRE, QC, CANADA H9R 1A1
TÉL.: (514) 630-4877 - FAX: (514) 630-4849

GFI est une division de Thomas & Betts Limitée / GFI is a division of Thomas & Betts Limited



BON DE LIVRAISON / SHIPPING MEMO

DATE DE LIVRAISON / SHIPPING DATE			N° DE BON DE LIVRAISON SHIPPING MEMO NO.	PAGE
JR - DY	MO. - MO.	AN. - YR		
24	11	16	0591321	1/1



VENDU À / SOLD TO

EXPÉDIÉ À / SHIP TO

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON
K6A 1K7

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON
K6A 1K7

CODE DE CLIENT CUSTOMER CODE		N° DE CONTRAT JOB NO.	VOTRE N° DE COMMANDE YOUR PURCHASE ORDER NO.	EXPÉDIÉ PAR SHIP VIA				
DART GFI-0299		0325629	PO34013					
QUANTITÉ QUANTITY	N° DE PIÈCE PART NO.		DESCRIPTION					
10	D4735-1P ✓		SCUFF PLATE ITEM 2 C OF C REQ'D FAI REQ'D <i>SP16-11-29.</i>					
MFG. JOB# 0325629 - 001 QTY 10 pcs								
DUE DATE: 30 November 2014								
<i>DA</i>								

EXPÉDITEUR
SHIPPER

REÇU PAR / RECEIVED BY

DATE

TOUTES LES RÉCLAMATIONS DOIVENT ÊTRE FAITES EN DEDANS DE 5 JOURS DE LA RÉCEPTION
ALL CLAIMS MUST BE MADE WITHIN 5 DAYS OF RECEIPT OF GOODS.

CERTIFICATE OF COMPLIANCE CERTIFICAT DE CONFORMITE



Membre de / A Member of **Thomas&Betts**

180 LABROSSE AVENUE
POINTE CLAIRE, QC
H9R 1A1

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7

CERTIFICATE NO. 10 OUR JOB NO 0325629 SHIPPING MEMO 0591321

ITEM	QUANTITY	PURCHASE ORDER	PART NUMBER	REV	NAME	DWG ISSUE
<u>2</u>	<u>10 PCS</u>	<u>PO34013</u>	<u>D4735-1P</u>	<u>A</u>	<u>SCUFF PLATE</u>	<u>A</u>
MATERIAL		SUPPLIED BY		MAT. REL. NO.		
<u>AMS 5513 304</u>		<u>TW METALS/ NORTH AMERICAN STAINLESS</u>		<u>H/N X5M1</u>		

	PROCESS	PROCESSOR	RELEASE NOTE #
1	<u>FIRST ARTICLE INSPECTION REPORT ON FILE</u>	<u>GFI</u>	<u>N/A</u>
2	<u>REF. GFI MANUFACTURING JOB NUMBER 0325629-001 (10 PCS)</u>	<u>GFI</u>	
3			
4			
5			
6			
7			
8			
9			

WE HEREBY CERTIFY ALL THE PARTS COVERED BY THIS CERTIFICATE HAVE BEEN MANUFACTURED FROM MATERIAL SUPPLIED ON RELEASE NOTE SHOWN ABOVE AND THAT ALL PARTS HAVE BEEN INDIVIDUALLY INSPECTED AND CONFORM TO THE DRAWINGS AND PURCHASE ORDER REFERENCED ABOVE.

DATE 24 NOVEMBER 2016

G.F.I. Q.C. REP. [Signature]





CERTIFICATIONS

FRAUD AND FALSIFICATION STATEMENT

The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under statutes including federal law. Title 18 chapter 47.

CERTIFICATE OF COMPLIANCE

This certificate of compliance certifies that the material supplied on the purchase order number below complies in all respects with the material description and procurement specifications.

MERCURY FREE STATEMENT

TW Metals certifies that the supplies furnished under this contract contain no metallic mercury or mercury compounds, and have not come in contact with mercury or alpha bearing instruments while in the possession of TW Metals Inc.

Customer Name: GFI, Inc
Purchase Order No.: 0087217
Item number: 0001 Shipper/Invoice No.: 12104383
Material: 304 Manufacturing Mill: NAS
Specification: AMS 5513 Heat / Lot No. X5M1
Size: 020 Quantity: 2PCS
Signature: Jarice Clark Date: 2/4/16





METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 130835 01

Customer: 0018 001

Mail To:
UNITED PERFORMANCE METALS
3475 SYMMES ROAD
HAMILTON, OH 45015

Ship To:
UNITED PERFORMANCE METALS
3475 SYMMES ROAD
HAMILTON, OH 45015

Date: 1/12/2016 Page: 1

Steel: 302/304/304L

Finish: 2B

Corrosion: ASTM A262/14; 180Bend-OK

Your Order: 01028072

NAS Order: AN 0682138 01

PRODUCT DESCRIPTION:

S/S COIL, C.R. ANNEALED & PICKLED; UNS 30400/30403/30200
ASTM A240/15a, A480/14b, A666/15; ASME SA240/13, SA480/13, SA666/13
CHEM ONLY ON FOLLOWING ASTM: A276/13, A479/13a, A484/13a, A312/13
CHEM ONLY ON FOLLOWING ASME: SA312/13, SA479/13
AMS 5511H/5513J/5516P XMRK; MIL-S-5059D AMD3(X CRN MEAS); MIL-4043B
NACE MR0175/ISO 15156-3:2009 A, MR0103/07; QQS766D-A X MAG PERM
MIN. SOLUTION ANNEAL TEMP 1900F, WATER QUENCHED

REMARKS:

Mat'l is Free of Mercury Contamination. No weld repairs.
EN 10204:2004 3.1; RoHS 1 & 2 Compliant
Material is Free of Radioactive Contamination
Steel Making Process: EAF, AOD, & Cont. Casting
Product Mfg. by a Quality Mgt. Sys. in Conf. w/ISO 9001
*Melted & Manufactured in the USA; Mat'l is DFARS Compliant

Product ID	Supplier ID	Thickness	Width	Weight	-----Length-----	Mark	Pieces	COMMODITY CODE
05X5M1 A	* 05X5M1	.0200	48.0000	24.630	COIL	7501.8	3	1 00711

Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Chemical analysis per ASTM A751/08

HEAT Supplier#	CM	C %	CR %	CU %	MN %	MO %	N %	NI %	P %	S %
X5M1 X5M1	US	.0229	18.0010	.4390	1.7395	.4680	.0760	8.0125	.0290	.0010
Lab Check:		.0226	17.8460	.4590	1.7480	.4600	.0755	8.0260	.0260	.0025
		SI %								
Lab Check:		.3140								
		.2510								

MECHANICAL PROPERTIES

Product Id	Supplier Id	1 d o i c r	UTS KSI	20C .2% YS KSI	20C ELONG %-2"	% Tail Hard	Grain No.	D Fer F.N.	Hard R45T R45T
05X5M1 A	05X5M1	F T	99.17	54.59	53.22	56.50	10.00	3.29	58.50

UPMQC
Review / Approved
Specs: ALL
By: MV Date: 1-15-16
#Pages: 2

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

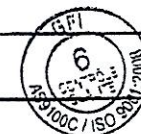
KRIS LARK

1/12/2016

UNITED PERFORMANCE METALS
This is to certify that in accordance with the records in
our files the material shipped on your purchase order
conforms to the following:

Size: 48.000 X 96.000
P.O.: D12016941
Part#: NORTH AMERICAN
STAINLESS
Sales #: 01268105
Quantity: 2

Description: 304/304L .018-.022 AMS5513/5511
Customer: GFI, Incorporated
Shipped: 03/07/2016
Heat: X5M1





METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

Certificate: 130835 01
Customer: 0018 001
Mail To:
UNITED PERFORMANCE METALS
3475 SYMMES ROAD
HAMILTON, OH 45015

Ship To:
UNITED PERFORMANCE METALS
3475 SYMMES ROAD
HAMILTON, OH 45015

Date: 1/12/2016 Page: 2

Steel: 302/304/304L

Finish: 2B

Corrosion: ASTM A262/14; 180Bend-OK

Your Order: 01028072

NAS Order: AN 0682138 01

PRODUCT DESCRIPTION:

S/S COIL, C.R. ANNEALED & PICKLED; UNS 30400/30403/30200
ASTM A240/15a, A480/14b, A666/15; ASME SA240/13, SA480/13, SA666/13
CHEM ONLY ON FOLLOWING ASTM: A276/13, A479/13a, A484/13a, A312/13
CHEM ONLY ON FOLLOWING ASME: SA312/13, SA479/13
AMS 5511H/5513J/5516P XMRK; MIL-S-5059D AMD3 (X CRN MEAS); MIL-4043B
NACE MR0175/ISO 15156-3:2009 A, MR0103/07; QQS766D-A X MAG PERM
MIN. SOLUTION ANNEAL TEMP 1900F, WATER QUENCHED

REMARKS:

Mat'l is Free of Mercury Contamination. No weld repairs.
EN 10204:2004 3.1; RoHS 1 & 2 Compliant
Material is Free of Radioactive Contamination
Steel Making Process: EAF, AOD, & Cont. Casting
Product Mfg. by a Quality Mgt. Sys. in Conf. w/ISO 9001
*Melted & Manufactured in the USA; Mat'l is DFARS Compliant

Product ID	Supplier ID	Thickness	Width	Weight	Length	Mark	Pieces	COMMODITY CODE
05X5M1 B	* 05X5M1	.0200	48.0000	24,280	COIL	7395.2	2	1 00711

Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Chemical analysis per ASTM A751/08

HEAT Supplier#	CM	C %	CR %	CU %	MN %	MO %	N %	NI %	P %	S %
X5M1 X5M1	US	.0229	18.0010	.4390	1.7395	.4680	.0760	8.0125	.0290	.0010
Lab Check:		.0226	17.8460	.4590	1.7480	.4600	.0755	8.0260	.0260	.0025
SI %										
Lab Check:		.3140								
		.2510								

MECHANICAL PROPERTIES

Product Id	Supplier Id	UTS KSI	20C .2% YS KSI	20C ELONG %-2"	Tail Hard	Grain No.	D Fer F.N.	Hard R45T R45T
05X5M1 B	05X5M1	F T 99.17	54.59	53.22	56.50	10.00	3.29	58.50



NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

KRIS LARK

1/12/2016

UNITED PERFORMANCE METALS
This is to certify that in accordance with the records in
our files the material shipped on your purchase order
conforms to the following

Size: 48.000 X 96.000
P.O.: D12016941
Part#: NORTH AMERICAN
STAINLESS
Sales #: 01266105
Quantity: 2

Description: 304/304L .018-.022 ANS5513/5511
Customer: GFI, Incorporated
Shipped: 03/07/2016
Heat: X5M1

Irina Garrett



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34013**

Purchase Order Date 10/20/2016

PO Print Date 10/20/2016

Page Number 1 of 2

Order From :
GFI
180 AVENUE LABROSSE
POINTE CLAIRE, QC H9R 1A1
CA

VC-GFI001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 514 630 4877

Ship To Contact
Ship To Phone
Ship Via: FedEx Economy collect
Ship Acct:

Buyer
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	D3628-1P AS PER DWG D3628 REV. C B151898	Cupped Washer	XXXXXXXX Yes XXXXXXXX 11/30/2016		500.00 Each	\$2.42	\$1,208.00
Line Total:							\$1,208.00
2	D4735-1P AS PER DWG D4735 REV. A B151913	Scuff Plate	XXXXXX Yes XXXXXXXX 11/30/2016		10.00 Each	\$126.00	\$1,260.00
Line Total:							\$1,260.00

APPROVED

By Pedro at 2:26 pm, Oct 21, 2016

Note:

10/20/2016



180 Lakeshore Av.
Pointe Claire, QC
H9R 1A1

TO:

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON
K6A 1K7

(CPO) PO#:

PO34013



(POI) ITEM#:

0002



PACKAGE COUNT:

1 OF 1

(PNR) PART NUMBER:

D4735-1P



(SHQ) QUANTITY:

10



PACKAGE WEIGHT:

(UNT) UNIT OF MEASURE:

EA



(PSN) PACKING SLIP #:

0591321



(COO) ORIGIN:

CA



(NAF) NAFTA:



(TRA) TRACEABILITY #:

0325629-001

